

STATE ACHIEVEMENT PERFORMANCE REPORT

STATE: INDIANA

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National Score Comparisons (Norm-Referenced)

Number of Students	Grade	Median NCE (1)				Median NP (2)			
		Read	Lang	Math	Battery	Read	Lang	Math	Battery
71083	3	55.8	57.8	59.1	58.7	60.0	64.8	66.4	66.3
65043	6	54.8	55.2	54.4	55.0	58.8	59.3	58.6	59.1
66108	8	57.2	54.5	55.7	55.9	62.8	58.8	59.9	60.8
65063	10	59.6	59.0	60.6	60.3	67.2	66.1	69.5	69.3

Indiana Academic Standards Summary

GRADE 3

GRADE 6

GRADE 8

GRADE 10

Percentage of
Students by
Performance
Level

M a t h	English/language arts					English/language arts					English/language arts					English/language arts					M a t h
	Level	Above	Below	Und	Total	Level	Above	Below	Und	Total	Level	Above	Below	Und	Total	Level	Above	Below	Und	Total	
	Above	58	12	0	70	Above	50	9	0	59	Above	57	6	0	63	Above	55	4	1	59	
	Below	10	19	0	29	Below	9	29	1	39	Below	13	21	1	35	Below	17	19	1	37	
	Und	0	0	0	1	Und	0	0	1	2	Und	0	0	2	2	Und	0	1	2	3	
	Total	68	31	1	100	Total	59	39	2	100	Total	70	28	3	100	Total	72	24	4	100	

Students not attempting the tests not included in student counts

TEST DATE: 10/01/98



(1) Use NCE for year-to-year and grade-to-grade comparisons
(2) Use median NP for national comparisons
Und Undetermined due to incomplete testing

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A Message from Dr. Suellen Reed

Dear Administrators, Teachers, Parents, and Students,

It is gratifying to look at the broad range of indicators that convey a clear and consistent message of Indiana's progress in improving education for Hoosier students. Results from the National Assessment of Educational Progress (NAEP) show our children doing better in the important area of mathematics. More high school students are meeting the rigorous requirements for an Academic Honors Diploma, while graduation and attendance rates are climbing and a higher percentage of Hoosier high school graduates are pursuing a college education.

One of the reasons for this improvement is *ISTEP+*. In both obvious and subtle ways, *ISTEP+* continues to focus our attention on student achievement, on the identification of students' strengths and weaknesses, and on ways to do a better job of meeting individual students' needs. *ISTEP+* is an outstanding assessment system that deserves our support. While we will continue to listen to you and still make improvements where necessary, *ISTEP+* needs, above all, a period of prolonged stability.

Sincerely,



Suellen Reed
Superintendent of Public Instruction

INDIANA ACADEMIC STANDARDS (CRITERION-REFERENCED INFORMATION)

Criterion-referenced Test: A test that reports students' scores relative to a body of information thought to be important to learn (see Educational Proficiency Content Standards).

Indiana Academic Standards: The Indiana Academic Standards define two general levels of knowledge and skill relevant to the Educational Proficiency Content Standards. These levels were defined by the State Board of Education as follows: To promote student academic achievement, the State Board of Education has adopted challenging content standards. The student who scores above the Indiana Academic Standard in English/language arts or mathematics demonstrates mastery of these content standards. Students who do not score at or above the Indiana Academic Standard in all likelihood need remedial assistance to be successful at the current grade level.

Educational Proficiency Content Standards: A general statement established by the Indiana State Board of Education of what a student should know and be able to do at the grade levels tested by *ISTEP+*. These proficiencies are: reading comprehension, language mechanics/vocabulary, writing, mathematics basic skills, and mathematics applied skills.

Indiana Essential Skills: Specific skills within the larger category of Educational Proficiency Content Standards measured by *ISTEP+* criterion-referenced questions.

Indiana Scale Score: Student achievement levels relative to the Educational Proficiency Content Standards are reported by *ISTEP+* as scale scores which are compared to the Indiana Academic Standards for English/language arts and mathematics.

NATIONAL SCORE COMPARISONS (NORM-REFERENCED INFORMATION)

Norm-referenced Test: A test that reports students' scores relative to those obtained by a national sample (norm group) of students (see National Percentile).

National Percentile (NP): The NP represents the percentage of students in the national norm group that scored below a given student's score. For example, a student whose NP score is 70 scored higher than 70 percent of the students in the norm group. The 50th NP represents the "national average" at the time the test was normed (i.e., half of the norm group scored below and half scored above an NP of 50).

Grade Equivalent (GE): This score represents the grade and month in school of students in the norm group whose test performance is equivalent to the test performance of a given student. For example, if a third-grade student obtains a grade equivalent of 4.8 on a mathematics test, it does not mean that the student has mastered all the mathematics that is taught in the school district during the first eight months of Grade 4. It means only that the student's performance on this test is theoretically equivalent to the typical performance of students in the norm group who have completed eight months of Grade 4.

Normal Curve Equivalent (NCE): The NCE was developed to allow mathematical manipulation of NP scores—especially for program evaluation and other research requiring the comparison of scores across groups or across time. NCEs can be thought of as NPs rescaled on an equal-interval scale (which allows them to be used in mathematical calculations such as deriving a mean score). NCEs should not be confused with National Percentile scores. NCEs are often converted to the NP scale for easier interpretation (see, for example, NP of MNCE).

Anticipated Achievement Normal Curve Equivalent (AANCE): A student's anticipated achievement score estimates the average score for students of similar academic aptitude. This lets you compare an individual student's level of achievement to that expected of similar students. Anticipated achievement scores are a function of a student's performance on the academic aptitude and achievement portions of *ISTEP+*.

NP of MNCE: This stands for the National Percentile of the mean NCE and is used to mark the arithmetic average of a group of NP scores. Since NP scores cannot technically be added, subtracted, multiplied, or divided, they are first converted to the equal-interval NCE scale, an average is calculated, and the average (mean) NCE is then converted back to an NP for interpretation. Think of the NP of the MNCE as the average National Percentile rank of a group.

Cognitive Skills Index (CSI): The CSI describes an individual's overall performance on the *ISTEP+* aptitude test. It compares the student's cognitive ability to that of students who are the same age, without regard to grade placement. The CSI is a normalized standard score with a mean of 100 and a standard deviation of 16.

National Percentile by Age (NPA): This score describes a student's performance on the *ISTEP+* aptitude test. It indicates the percentage of students in the norm group whose scores fall at or below an individual student's norm-referenced scale score for each test section. For aptitude, the norm group against which a student is compared is composed of students who are the same age in months, unlike achievement norms, which compare students within a grade.

SUMMARY INFORMATION

Mean: Perhaps the most often used "average," the mean is the arithmetic average of a group of scores. It is calculated by adding the scores and dividing the sum by the number of scores.

Median: The median is an often used "average." It is defined as the score below which half of the cases fall. The median and the 50th percentile are the same (see National Percentile).

Mean Scale Score: The arithmetic average of the scale scores obtained by a group of students.

Standard Deviation (SD): A statistic that indicates the amount of variability in a group of scores. When scores are normally distributed (i.e., when they are part of a bell-shaped, "normal" curve), about two-thirds of the scores are within one SD above and below the average (mean) score and about 95% of the scores are within 2 SDs of the mean. In almost any shaped distribution, all scores will be within 5 Standard Deviations above or below the mean score.

